

Insight

June 2013

New Measures for the Support of Renewable Generation Investment Projects in Russia

Russia has introduced a scheme whereby selected renewable generation projects can qualify to receive set capacity payments, intended to deliver recovery of capital invested and a certain level of return over a fifteen year period from the date of their commencement of operation. The first tender for participation in the scheme is to be held by September 2013.

The Russian Government has recently adopted a key piece of legislation for the support of renewable power generation projects in the country. Government Regulation No. 449, dated 28 May 2013 ("**Regulation 449**") comes into force on 11 June 2013, and establishes a long-awaited incentive mechanism for the use of renewable energy on the wholesale power market¹, operating through the capacity payment system. Regulation 449 is accompanied by certain simultaneous changes to the Russian Government's published policy guidelines for encouraging the development of renewables.

Certain details of the system remain to be published², but its main parameters are already clear.



For more information, please contact:

Igor Ostapets

Partner

+ 7 495 787 3019

iostapets@whitecase.com

Adam Smith

Counsel

+ 7 495 787 3002

adam.smith@whitecase.com

¹ The wholesale market is primarily intended for the trade in power as between larger generators (having a minimum capacity of 5 MW at each station) and supply companies, although it is also open to large industrial consumers.

² In particular, the system will require amendments and additions to the *Agreement for Accession to the Trading System of the Wholesale Market*, entry into which is mandatory for all wholesale market participants, and which regulates the detailed operation of the market.

Background – the Capacity Market

The regulatory structure of the Russian wholesale electricity market provides for the trade in capacity as a commodity distinct from power itself. The purpose of the capacity market is to stimulate investment in generating capacity, by providing generators with some assurance of recovery of fixed costs, and thereby to ensure that there is a sufficient reserve of capacity to meet prospective demand. The act of purchasing capacity entitles the buyer to require that the relevant generation facilities be available to supply the corresponding quantity of power. Conversely, in order to fulfil an obligation to supply capacity, the generator must maintain its generating facilities in a state of readiness to generate, as defined by the regulations. A generator that has successfully “sold” its capacity in the market and fulfils the readiness to generate requirement receives monthly capacity payments.

The foundation of the capacity system is a regulatory obligation imposed on all purchasers of power on the wholesale market to buy a quantity of capacity determined with reference to their peak hour demand for power. Capacity can be bought and sold on the market through a number of forms of agreement. These include agreements concluded pursuant to the annual competitive selection of capacity (referred to under its Russian abbreviation of “KOM”), and various forms of long-term capacity agreement open to certain generators for listed projects for the construction new capacity or the modernisation of existing facilities. The latter include the agreements for delivery of capacity (sometimes referred to by the Russian abbreviation “DPM”) in respect of the investment programs of the major thermal generators, and similar agreements for the delivery of the investment programs of the nuclear and hydroelectric generating companies.

Agreements for the Delivery of Renewable Capacity

Regulation 449 introduces a new form of long-term capacity agreement for selected renewable generation projects, to which we refer as “agreements for the delivery of renewable capacity³” (“ADRCs”). Projects are to be selected for the right to benefit from ADRCs through an annual tender process.

The system is open to solar, wind and small-scale (less than 25 MW) hydroelectric projects. The capacity of the project must be at least 5 MW. In order to participate in a tender, the generator must be registered as a participant in the wholesale market and a conditional group of supply points (GSP)⁴ must have been registered for the generating object. The object must be located

in one of the so-called “pricing zones” of the wholesale market, being those areas of European Russia and Siberia in which power market liberalization has been applied⁵. Projects that have already been selected in the general capacity tender process (KOM) are excluded.

The precise form that ADRCs will take is as yet unclear, but it is likely that (by analogy with the existing forms of long-term capacity agreement) the agreement will define the project operator’s obligations in respect of completion of the project by the promised date and that, once the project is operational, the regulatory authorities will be empowered to require buyers on the wholesale market in the relevant pricing zone to enter into the corresponding capacity sale and purchase relationship with the operator (thereby fulfilling part of the buyer’s capacity purchase obligation).

The supply period (during which capacity payments are made) under an ADRC is fifteen years from the date on which the capacity is due to become available. By way of comparison, the supply period under similar agreements for thermal generation is 10 years, and for nuclear and large-scale hydroelectric generation, 20 years. The level of the capacity payments due over the supply period is determined with reference to the costs of the project on a basis set out in the regulations, described in further detail below.

Localization as a Separate Objective

The introduction of the ADRC system has been accompanied by amendments to the Russian Government’s policy guidelines for renewables to make promoting localization of renewables projects (i.e. the extent to which renewable generating equipment is produced domestically within Russia) a stated policy objective. In this connection, the Government has introduced a numerical measure of localization (expressed as a percentage), and published target levels for the degree of localization of renewable generating facilities of each type. These are:

- For wind projects, 35% for 2014, rising to 65% from 2016;
- For solar projects, 50% for 2014, rising to 70% from 2016; and
- For small-scale hydroelectric projects, 20% for 2014, rising to 65% from 2018.

For the purposes of measuring localization, the various component parts of the generating facilities of each kind are assigned different percentage scores. The degree of localization of a project has a significant bearing on its ability to benefit from the ADRC system.

3 The full name is “agreements for the delivery of capacity of qualifying generating objects functioning on the basis of the use of renewable energy sources”.

4 This refers to the intended point(s) of connection of the object to the transmission grid. A similar requirement applies to other newly constructed facilities the subject of long-term capacity agreements.

5 Large parts of Russia, including the whole of the Russian Far East, have been excluded from aspects of the power liberalization program on the basis that there is insufficient scope for competition in these sparsely-populated or isolated areas.

Capacity Pricing under ADRCs

The monthly capacity payment due to the operator of a renewable generation project under ADRCs is determined with reference to its relevant costs, a certain fraction of which is recoverable through the ADRC system. Qualifying costs include the capital cost of the generating object as bid in the tender, less the amount of that capital cost covered by state subsidies, a fixed allowance for operating costs⁶, and the relevant property tax payable by the operator. For the purposes of the calculation, the capital cost bid by the operator is adjusted by a coefficient reflecting the degree of localization the effect of which is to reduce the payment very significantly if the target level of localization is not in fact met.

The fraction of costs recoverable through the ADRC capacity price is determined on an annual basis with reference to the ratio of the forecast profit⁷ from the sale of power in the relevant year of all objects of the same type (wind, solar or hydroelectric) in the same pricing zone to their required gross revenue, as determined in accordance with the regulations. If that ratio is greater than one, the recoverable fraction is zero.

The portion of the capacity price referable to *capital* costs is calculated on an annual basis based on a target return on capital calculated in accordance with a formula which applies a base level of return of **14%** for projects selected before 1 January 2015 and **12%** for projects selected thereafter, in each case adjusted to reflect the current rate of return on long-term state debt (against a reference rate of 8.5%), and the pay-back of the capital itself spread over the 15-year term. To this is added the allowance for operating costs. Both capital and operating costs are adjusted for this purpose by applying the fraction derived from projected profit from power sales. Allowance for property tax is then added, and the resultant total is adjusted with reference to a further coefficient reflecting the load factor of the object. For this purpose, the load factor of the object is compared with a target level for objects of that type. If the actual load factor of the object does not exceed 0.5 of the applicable target, then the coefficient is zero (so no payment is received). If it is between 0.5 and 0.75 of the target, the coefficient is 0.8. If it is more than 0.75 of the target, the coefficient is 1.

Availability Test for Renewable Objects

The requirements for most (conventional) generating facilities to be deemed ready to generate and thereby qualify to receive the applicable capacity payments in a given month are extensive, and include requirements that the facilities be capable of participating

in frequency regulation, offer their full available capacity in the day-ahead bidding process and comply with dispatch instructions. In recognition of the fact that renewable generators have lesser maneuverability and predictability of output, these requirements are largely disappplied in respect of them, and availability is instead determined solely with reference to whether the generator stays within its maximum agreed periods of downtime for maintenance and is capable of fulfilling dispatch instructions to cut off its output.

The Tender Process for ADRCs

A project qualifies for ADRCs through an annual tender process operated by the Commercial Operator (the Administrator of the Trading System, or ATS). The first such tender is due to be held by no later than 30 September 2013. Each annual tender is held for the procurement of renewable capacity to be brought into operation in the calendar year immediately following the year of the tender, and each of the three years after that. The regulations fix a target aggregate quantity of capacity of each of the three types to be launched in a given year, and the objective of the tender is to select projects of each type having a combined capacity that, when taken together with any projects already selected for that year in previous tenders, is equal to that target quantity. The target quantities are as follows:

- For **wind projects**, 100 MW for 2014, rising to 1000 MW in 2020;
- For **solar projects**, 120 MW for 2014, rising to 270 MW in 2020; and
- For **small-scale hydroelectric projects**, 18 MW in 2014, rising to 159 MW in 2020.

A bid in respect of a project must include the following (along with other project information):

- The month in which the supply of its capacity is expected to commence;
- The planned capital cost of the project (including network connection costs) per 1 KW of its planned established capacity;
- The planned degree of localization of the project, which must not be below the target level; and
- The nature and amount of security offered by the bidder for the fulfillment of its obligations arising pursuant to the results of the tender, which must be in an amount not less than 5% of the bid capital cost of the project.

⁶ Fixed at RUB 170,000 per MW per month for solar, RUB 118,000 per MW per month for wind and RUB 100,000 per MW per month for small-scale hydroelectric.

⁷ For this purpose, profit is calculated on the basis of annual revenue from power sales (applying certain assumed load factors) minus a small fixed allowance for variable costs only (RUB 1 per MWh for solar and wind, RUB 10 per MWh for hydroelectric).

Projects are subject to a maximum level of capital costs fixed by the regulations, and bids that exceed these levels will be disqualified. In respect of the year 2014, these are RUB 116,451 per KW for solar projects, RUB 65,762 per KW for wind and 146,000 per KW for small-scale hydroelectric.

If the aggregate capacity of renewable projects of a given type for a given year in respect of which compliant bids have been submitted does not exceed the target capacity for that year, then all such bids are accepted. If the aggregate capacity of bids exceeds the target level, then bids are selected on the basis of the level of capital costs bid. ADRCs are then concluded in respect of the successful projects.